

Clemson University

TigerPrints

Agrarian

Agriculture, Forestry and Life Sciences, College
of

11-1-1949

The Agrarian Vol. 9 No. 1

Clemson University

Follow this and additional works at: https://tigerprints.clemson.edu/spec_agrarian

Materials in this collection may be protected by copyright law (Title 17, U.S. code). Use of these materials beyond the exceptions provided for in the Fair Use and Educational Use clauses of the U.S. Copyright Law may violate federal law.

For additional rights information, please contact Kirstin O'Keefe (kokeefe [at] clemson [dot] edu)

For additional information about the collections, please contact the Special Collections and Archives by phone at 864.656.3031 or via email at cuscl [at] clemson [dot] edu

Recommended Citation

University, Clemson, "The Agrarian Vol. 9 No. 1" (1949). *Agrarian*. 26.
https://tigerprints.clemson.edu/spec_agrarian/26

This Book is brought to you for free and open access by the Agriculture, Forestry and Life Sciences, College of at TigerPrints. It has been accepted for inclusion in Agrarian by an authorized administrator of TigerPrints. For more information, please contact kokeefe@clemson.edu.

AGRICULTURAL REFERENCE DEPARTMENT
CLEMSON COLLEGE LIBRARY

The **Agrarian**

OFFICIAL STUDENT PUBLICATION



The Clemson Agricultural College
November, 1949



School of Agriculture
Clemson, S. C.

*So Mild-
and they
Taste
so good!*



Camels

The Agrarian

OFFICIAL STUDENT PUBLICATION

VOLUME 9

THE CLEMSON AGRICULTURAL COLLEGE

NUMBER 1

EXECUTIVE STAFF

Editor L. B. DeYoung
 Managing Editor .. W. R. Alexander
 Business Manager C. B. Doyle
 Advertising Manager .. W. J. Bryan
 Circulation Manager .. W. H. Craven
 Photographer B. B. Smith
 Asst. Adv. Manager .. E. A. Garner
 Asst. Circ. Manager .. W. J. Jenkins

DEPARTMENT EDITORS

Agric Engineering S. P. Young
 Agronomy J. H. Pitts
 Animal Husbandry T. A. Warren
 Dairy J. E. Cushman
 Horticulture S. W. Hastings
 Voc. Agric. Ed. R. K. West
 Botany H. F. Philippsthal
 Poultry W. T. Derieux

ASSISTANT STAFF

J. L. Frierson, G. H. Liebenrood, S.
 G. Gilliam, A. C. White, J. Woodfin,
 J. M. Gaston.

ADVISORY BOARD

Prof. B. E. Goodale Chairman
 Dr. G. H. Aull.

THE AGRARIAN — published in
 November, January, March and May
 by the under-graduate students in
 the School of Agriculture. Opinions
 expressed in this magazine do not
 necessarily reflect the policy of the
 School of Agriculture or the College.

Advertising rates will be sent on
 request.

National Advertising representa-
 tive Littell-Murray-Barnhill, Inc., 101
 Park Avenue, New York 17, N. Y.

All correspondence should be ad-
 dressed to the AGRARIAN, Clemson
 College, Clemson, S. C.

No article may be reprinted with-
 out permission.

SUBSCRIPTION FREE.

CONTENTS

King Cotton from India to America	3
Legends of Christmas Plants	4
Poultry Improvement in South Carolina	5
Farmers' Week in Review	6
Vegetable Production in South Carolina	9
Bountiful Blossoms and Evergreen Beauty	11
Between the Furrows	12
Agrarian Philosophy	15
Cash on the "Stumphead"	18
We Can Have Green Pastures the Year-Round	21
Tall Corn	22
Short Notes on Long Hall	24
Dr. Cooper Elected Vice President of A.S.A.	24

Legends of Christmas Plants article, courtesy of Mas-
 ter Gardener, Swift & Company.

Pictures on pages 3, 6, 7, and 9, courtesy of B. K.
 Eargle, Clemson Extension Photographer.

COVER—Pasture Scene at Clemson. Photo by B. B.
 Smith, Agrarian Photographer.

DEPENDABILITY

As a successful businessman, you know that *dependability* is an infallible measure of men *and* machines . . . a *quality* that determines the acceptance in a community for the businessman and the equipment he sells and services.

Minneapolis-Moline's reputation as a manufacturer of a complete line of Modern Machines, Visionlined Tractors and Power Units of *proved dependability* is a source of pride to the entire MM organization, MM owners and users throughout the world . . . an obligation to MM dealers who are as much concerned with service as with sales. That's why progressive farmers everywhere know they can rely upon their friendly, independent MM Dealer . . . who runs his own business in the true spirit of the American free enterprise system.



MINNEAPOLIS-MOLINE

MINNEAPOLIS 1, MINNESOTA

King Cotton, From India to America

HISTORICAL NOTES ON A HISTORY MAKING PLANT

Cotton is the backbone of Southern economy, yet few Southerners know whence it came. Actually no one else knows, but through piecing together fragments of history, we can get a fair picture of the origin of cotton.

The English word "Cotton", came from the Arabic word "gutun".



Ancient East

Archaeological excavators in northwestern India unearthed some fragments of cotton cloth and string that is believed to date back to 3000 B. C. The first reference of cotton in literature, so far as is known at present, is to be found in a Hindu hymn. This hymn was written fifteen centuries before Christ and mentions "thread in the loom", showing that cotton was already being used in weaving. Herodotus reported in 425 B. C. that there were trees growing wild in India. "The fruit of which is a wool exceeding in beauty and goodness that of sheep".

From references made to cotton by various early writers, it appears that not only did the Hindus grow cotton and use it in making cloth from ancient times, but that for 3000 years India was the center of the cotton industry.

The machinery used by the ancient Hindus in ginning, spinning, and weaving cotton was of the most primitive type. The gin was a small roller gin called Churka, consisting of two upright pieces between which were two horizontal rollers so set that they almost touched. Attached to one of these rollers was a crank.

The cotton seed with lint attached was fed between the rollers on one side, the lint being caught by the rollers and passed on through, but the seed, being larger, could not pass and were thus separated from the lint. This gin type was practical only when using Sea Island or smooth-seeded varieties.

J. H. PITTS Agronomy 1951

Cotton was introduced into China from India, but until about 1300 A. D., it was used only as an ornamental in their gardens.

Cortez in 1519, discovered that the inhabitants of Mexico possessed much knowledge and skill in cotton manufacture, and he sent an assortment of their goods to the King of Spain. Simultaneously cotton was found growing in Peru and Brazil by the early explorers.



Colonial South

The first attempt to grow cotton in the United States was in the Virginia colony in 1607, the year the colony was established. Cotton production was held in check in this colony by the extreme profitability of tobacco culture. It took nearly a hundred years from that date before the plantations became of national importance, but the seat of the cotton industry gradually shifted South and West.

In the early part of the eighteenth century English woolen interests vigorously attacked their growing competitor, cotton. By an Act of 1720, the use and wear in England of printed, painted or dyed cottons was prohibited.

Cotton was raised in Georgia in 1734, from seed supplied from Chelsea, England by Philip Miller. These seed were the original stock of the better grades of the green-seeded plant now known as *Gossypium hirtum* or common upland cotton. In 1786, the green-seeded cotton was, in the states, the most largely grown of all kinds, but in that year, black-seeded or Sea Island cotton was introduced from the Bahamas into Georgia, and two years later its cultivation was attempted in South Carolina. There is no positive knowledge of Sea Island cotton being grown prior to this time. The staple of greatest value to the pioneer planter was doubtless a plant very similar to the upland cottons of today.

Prior to 1793 there were no satisfactory cotton gins in use in the colonies. Most of the lint was picked from the seed by hand, a very slow, laborious process. A man could pick off only one or two pounds of lint a day.

With the invention of Whitney's gin in 1793, a new era started in the cotton industry in America. The production, exports, and domestic consumption all increased with rapid strides following the introduction of this new labor-saving machine. Although the first mills were erected



New South

in New England, the first cotton mill in the South was built at Statesburg, S. C. Until 1815, only carding and spinning were done with power machines, the weaving being done on hand looms. Spinning and weaving in the home continued in the
(continued on page sixteen)

LEGENDS OF CHRISTMAS PLANTS

The plants and flowers that are now one of the wonderful parts of the Christmas season are surrounded with legends that give them interesting . . . and as a full and deep meaning.

POINSETTA

A little Mexican waif on Christmas Eve had no gift to take to the Cathedral, so not wishing to enter empty-handed, she picked a weed along the roadside and climbed the steep path to the church. She knelt and laid her gift on the altar, and as she rose to go, she saw that the poor little weed was suddenly a beautiful Poinsetta or the Flor de la Nochebuena (Flower of the Nativity) as it is called in Mexico.

CHRISTMAS ROSE

The story behind the Christmas rose (Helleborus) is of ancient origin. Supposedly a young shepherd girl was weeping bitterly as she watched

the Wise Men on their way to take gifts to the Christ Child. An angel appeared there in the early dawn with a shining light about her, and asked why was she crying. The little girl explained that she was poor and had no offering to give the Babe of Bethlehem. Hearing this, the angel with shining wings brushed the ground and it became carpeted with glistening white Christmas roses. The young girl quickly gathered great bunches of the beautiful flowers and hurried to the Christ Child. He smiled and touched his fingers to the white flowers and the petals became tinged with pink.

MISTLETOE

The story of Mistletoe, the plant that today is associated with the gay side of the Christmas season, was originally symbolic of serious and sacred matters. The white berries are said to be the radiance caught

from the guiding star when the Wise Men made their gifts to the Christ Child. They symbolize purity and peace. According to Norse legend, the plant is sacred and must not touch the earth, hence our custom of hanging it high at Christmas. The monks of the monasteries termed it "The Wood of the Cross" and attributed to it supernatural powers. The Druids of ancient Britain made the gathering of mistletoe a sacred ceremony. In Scandinavia the plant was so revered and cherished that it was thought that if enemies met beneath it in a forest, they disarmed and kept a truce until the next day.

HOLLY

The legends regarding the holly also date back to the Druids, who believed the evergreen leaves of the holly were proof that the sun never deserted it and it was therefore sacred. Legend also says that the Crown of Thorns was composed of holly, and that before the crucifixion the berries were white, but turned crimson, like drops of blood.

Member

National Hay Association

SHIPPERS

ALFALFA MEAL

CHOPPED ALFALFA

ALFALFA AND PRAIRIE HAY

Famous Platte Valley High Protein Alfalfa



SOFSTALL HAY COMPANY

Cozad, Nebraska



Shipments Direct from Source of Largest Alfalfa Producing Territory

POULTRY IMPROVEMENT IN SOUTH CAROLINA

FIFTY-ONE S. C. HATCHERIES FOLLOW NATIONAL PLAN

The National Poultry Improvement Plan, which became operative July 1, 1935 under the direction of the Bureau of Animal Industry, U.S.D.A., in cooperation with the state authorities for the improvement of poultry, poultry products, and hatcheries, was developed with a view to the establishment of the poultry-breeding industry on a sound basis. The objectives of the National Poultry Improvement Plan are to improve the breeding and production qualities of poultry and to reduce losses from pullorum disease. Actually the plan does much to afford protection from unscrupulous competition and enables purchasers to buy with more confidence. Acceptance of the plan is optional with states and individual members of the industry within the state. In

this state the National Plan is administered by the South Carolina Poultry Improvement Association, which in 1949 included 51 hatcheries producing baby chicks and turkey poults, and more than 200 flock owners supplying hatching eggs.

By **WILLIAM DERIEUX**
Poultry, 1950

There are two divisions of the National Poultry Improvement Plan, namely, the breeding stages and the pullorum control and eradication classes. The four breeding stages of the plan are designated as U.S. Approved, U.S. Certified, U.S. Record of Performance and U.S. Register of Merit. Under the pullorum control program there are three classes, U. S. Pullorum Controlled, U.S. Pullorum Passed and U.S. Pullorum Clean.

To qualify as a U.S. Approved flock the females must be rigidly selected each year for constitutional vigor and physical characteristics of egg production combined with standards for the breed and variety. The males are selected for constitutional vigor and standard bred qualities. The selections are made by, or on approval of a state inspector or flock selecting agent. From such flocks U.S. Approved eggs are produced from which in turn are hatched U. S. Approved Chicks.

In U. S. Certified flocks the females are rigidly selected by the same standards as for U.S. Approved females, but the males in addition to rigid physical records of 200 or more eggs averaging 24 ozs. per dozen in their first laying year. Eggs from U.S. Certified flocks produced U.S. Certified chicks.

To meet the requirements for the U. S. Record of Performance breed-
(Continued on page 20)

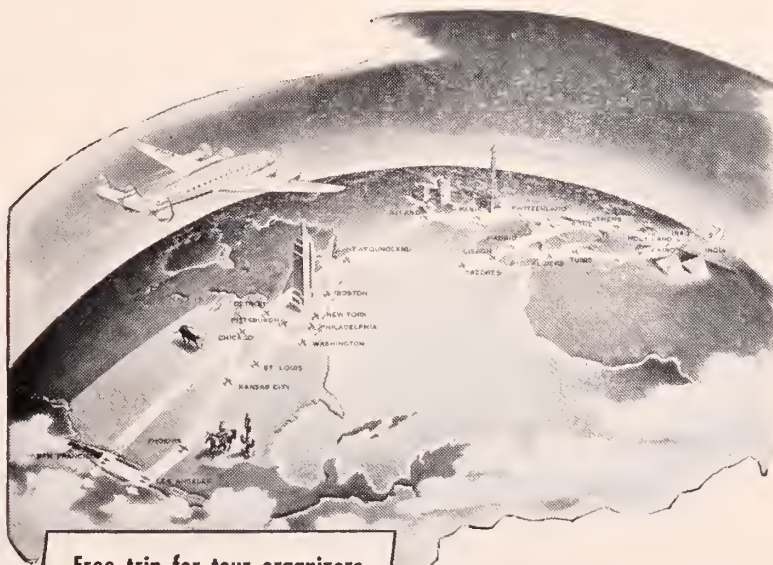
TWA Announces REDUCED OVERSEAS STUDENT FARES

35-50 per cent savings
on TWA Skyliner trips abroad

Now, students from 12 through 21 planning to travel and study abroad can go by de luxe TWA Skyliner at big savings. Starting October 1, 1949, fare reductions of 35 per cent will be in effect for TWA round-trip ocean crossings. Once students arrive in Europe, they become eligible for a reduction up to 50 per cent for travel to and from distant points, even as far as Bombay. Tickets are good for one year.

Although fares are reduced, TWA's service stays at its consistently high level. You'll relax in your lounge seat, have tasty, full-course meals served you. And in a matter of hours you'll arrive at your destination, thanks to TWA 300-mph speed and dependability.

For details, contact your nearest TWA office, or your travel agent.



Free trip for tour organizers

TWA gives a full free ticket over its International routes to any person engaged in educational work who organizes and conducts a party of ten or more persons for an overseas tour. Persons may organize groups for university study abroad, or may secure ten or more enrollees to the International Youth Camps in Switzerland (ages 12-20). Call on your nearest travel agent for details.

*Across the U.S. and overseas...
you can depend on*

TWA
TRANS WORLD AIRLINE
U.S.A. • EUROPE • AFRICA • ASIA

FARMERS' WEEK IN REVIEW



Who says farming isn't big business?



The monster takes a bite

These are some of the scenes which occurred during the 1949 Farmers' Week program at Clemson last August 22nd to 26th. An estimated six thousand visitors participated in the varied five-day program which featured over one hundred different speakers on agricultural and home-making subjects.

Principal addresses were delivered by Governor J. Strom Thurmond,

Senator Olin D. Johnston, Donald M. Hastings, Hastings Seed Company, Atlanta; Audley H. Ward, district extension agent, Aiken; Dr. H. P.

By H. M. SIMMONS
Assistant Exp. Sta. Editor

Cooper, dean and director, S. C. Experiment Station; Mrs. Alonzo Pet-
tys, co-publisher of the **Sterling**

Farm Journal, Sterling, Colorado; Guy L. Noble, director, National Committee on Boys and Girls Club Work; Jesse T. Anderson, state superintendent of education, Columbia, and Dr. James W. Sells, Religious Editor, **Progressive Farmer**, Atlanta.

Other highlights of the week's program included land clearing and irrigation demonstrations with the

Speakers

Exhibits

Square Dances

Concerts



Clouds of destruction for destructive pests



"How-To" demonstration

AN ESTIMATED 6,000 VISITORS FLOCK TO CLEMSON TO PARTICIPATE IN VARIED FIVE-DAY PROGRAM OF AGRICULTURAL PROGRESS "IN-THE-MAKING"



Sunny days — white shirts & a full program



Pest control in its fastest, most colorful phase

latest types of machinery and equipment, orchard dusting and spraying, a pasture tour, and a visit to historical points of interest near Clemson. Two lectures on flower arrangements by Mrs. Donald M. Hastings of Atlanta drew large crowds of interested women visitors to the College Chapel the first two days of Farmers' Week. One of the largest displays of farm machinery ever

seen in the Southeast was held on Bowman Field and viewed by thousands of visitors.

Many state groups held their annual meetings at Clemson during Farmers' Week and participated in the programs. Included in these organizations were the South Carolina Rural Ministers Conference, the State 4-H Club Council, State Beekeepers Association Short Course,

Farmers Home Administration (S. C. division), Soil Conservation Service District Supervisors, U.S.D.A. Council meeting, South Carolina Seedsmen's Short Course, an executive committee meeting of the State Nurserymen's Association, and a training school for flock selecting and pullorum testing agents.

Photos by B. K. Eargle,
Clemson Extension Photographer.

Tours

Demonstrations

Group Singing

Style Shows



Latest Methods of boll weevil warfare



Toothpicks for a mechanical giant

Suni-Citrus Pulp
is popular with
progressive
Dairymen
because . .

1. IT is an excellent cattle conditioner.
2. IT will take the place of BEET PULP.
3. IT has a tonic effect upon the animal.
4. IT will produce good milk flavor.
5. IT is a bulky and succulent feed.
6. IT contains 1520 pounds of digestible feed per ton — therefore a cheap source of digestible nutrients.



Cows Love Suni-Citrus Pulp

Suni-Citrus is rich in milk-making units, brimming with bovine health and happiness. That's why—

"They Moo For More"

Suni-Citrus Products Co

HAINES CITY, FLORIDA

Sales Agent: ASHCRAFT-WILKINSON COMPANY, ATLANTA, GEORGIA

Marett's Pedigreed Seed

COTTON

White Gold Strain 5 White Gold Wilt

SMALL GRAIN

Marett's Chancellor Wheat

Calhoun Barley Strain 3

Anderson Oats

Use Pedigreed Seed for Higher Production

**MARETT'S
FARM & SEED COMPANY**
WESTMINSTER, SOUTH CAROLINA

**TWO FAMOUS
QUALITY PRODUCTS**

BORDEN'S DAIRY STARLAC
For Buttermilk, Chocolate Drink and
All Creamery Uses.

**BORDEN'S
SPECIAL ICE CREAM STARLAC—
ESPECIALLY FOR ICE CREAM**
Gives Added Body and Smoothness



Ask us for literature and quotations
Distributed in North and South Carolina by

R. R. BEATTY
CHARLOTTE, NORTH CAROLINA

1233 W. Morehead St.

Phone 3-2302

FUTURE PROMISING!

VEGETABLE PRODUCTION IN SOUTH CAROLINA

LONG GROWING SEASON, HIGH RAINFALL, AND GOOD SOILS GIVE S. C. ADVANTAGE

During every season in each region of the country there are certain vegetables which can be grown in the home garden, but most of the extensive commercial production has developed in well defined areas because of climate, soil, or access to markets. South Carolina is located in one of the five major areas of production and offers great potentialities as a vegetable producing state. Many vegetable crops are grown in the state, but, in general, commercial production has been limited to the more important crops such as Irish potatoes, cabbage, watermelons and beans. Considering the prices received, many of the minor vegetable crops could be grown with a greater profit.

A belt extending back 100 miles from the coast is ideally suited to the production of truck crops. The temperature is moderate, and the number of frost free days does not limit vegetable growing to any extent. In the eastern part of the state the length of the growing season

averages 250 days. With South Carolina's long growing season and the fact that the best prices are generally obtained from either late or early crops, there is every reason to believe that production will increase particularly with certain kinds of vegetables. Yield and quality of the various varieties grown in the state is closely correlated to external conditions, and South Carolina is possessed with the condition necessary for the production of high yielding, quality vegetables. With the establishment of the U. S. Regional Vegetable Breeding Laboratory at Charleston and the employment of several plant breeders by the S. C. Experiment Station, new varieties will be presented which will be adapted to conditions as they exist here.

There are many factors which control the growth of vegetables, but, in general, climate and soil type are by far the most important. The growing season rainfall in South Carolina averages 37 inches and is

length of daylight needed, the amount of rainfall and fertilizer necessary, are all important factors in selecting crops. Subjects also to be considered would be those related to storage, perishability, competition with other growing areas and probable markets for the goods produced.



Cabbage for a mountain of coleslaw and sauerkraut galore

By S. W. HASTINGS
Horticulture, 1950

distributed fairly evenly over the entire season; however, seasonal droughts occur in certain areas and irrigation is desirable for the production of certain kinds of vegetables. This factor gives the state a decided advantage over other states in the production of vegetables.

A fertile sandy loam soil is considered best for growing most vegetable crops, but many can be grown on a wide range of soil classes and types. The lower coastal plain contains the principal soil series of Norfolk, Blanton, Dunbar, Coxville, Bladen, Marlboro, and Portsmouth which are excellent vegetable producing soils.

In selecting a crop to be grown a thorough examination should be made of all conditions necessary to successfully complete the planting and harvesting of the crop. The soil type and condition should be studied so as to ascertain the best methods to be followed in preparing for the cultivation of the crops. The length of time required to grow the crop, the temperature requirements, the

length of daylight needed, the amount of rainfall and fertilizer necessary, are all important factors in selecting crops. Subjects also to be considered would be those related to storage, perishability, competition with other growing areas and probable markets for the goods produced.

Vegetable growing requires many man hours of labor, and with the increase in cost of labor the margin of profit becomes definitely smaller. New labor saving devices for harvesting, planting, and weeding are rapidly meeting the problems presented by increased labor cost.

The lack of adequate marketing facilities has greatly hampered growers in this state, but with the aid of state funds and current research new markets will be established and better facilities provided. South Carolina is fortunate in having excellent farm roads which tend to aid in the marketing of crops. The state is traversed by railroads and trucklines which can carry in a period of eight hours produce from the producing centers to points anywhere within the state. A fine seaport plus fast train service to large northern markets will aid considerably the expanding vegetable production.



Long rows of lettuces for high stacks of sandwiches

averages 250 days. With South Carolina's long growing season and the fact that the best prices are generally obtained from either late or early

FENCE POSTS LAST 7 TIMES LONGER
WHEN TREATED WITH
ANTIROT 10X

And you save money, too, by doing your own mixing.

Cut down repair costs on buildings, bridges, and other wooden structures by preventing rot, decay and insect attack.

One gallon of ANTIROT will treat 22 posts six feet long and four inches in diameter at a material cost of only 18c per post (including cost of fuel oil).

No expensive equipment is necessary to do a good job right on your own farm. Any metal container such as two old steel drums welded together can be used as a treating vat.

ANTIROT is simple to use. Dilute 1 gallon with 10 gallons of fuel oil, agitate to obtain a uniform mixture and you're ready to begin treatment. Place posts to be treated in vat containing the dilute ANTIROT and allow to soak 48 hours.

The cheapest post will then give you years of service, eliminating the expensive repair and replacement of fences.



WOOLFOLK CHEMICAL WORKS, LTD.

MANUFACTURERS, FORT VALLEY, GEORGIA

BOUNTIFUL BLOSSOMS AND EVERGREEN BEAUTY

CAMELLIA CULTURE POINTERS — SET FORTH STEPS FOR SHRUBS SUCCESS

It is the opinion of many people that camellias make up the royal family of all broadleaf evergreen shrubs. Their increasing popularity is shown by the rapid increase in membership of the Camellia Society of America which was founded September 29, 1945, at Macon, Georgia, and now has nearly four thousand members.

Camellias were formerly used almost entirely as occasional specimen plants by landscape gardeners, but now they are being widely planted in gardens of the South and West and are frequently used as hedges and in foundation plantings. They are placed in the first rank of garden shrubs because of their evergreen foliage, autumn and winter flowering, and good growth habits.

Nearly all camellias grown in America originated in the orient and largely came from two species; *Camellia japonica* and *Camellia sasanqua*. However, plants of species *Camellia reticulata* and *Camellia saluenensis* are seen very infrequently.

Of the thirty-three species of *Camellia* only about six are grown in the Eastern part of South Carolina and especially along the coastal plain all species thrive and flower exceptionally well with proper care. In the Piedmont Area all *sasanquas* and many *japonicas* will bloom satisfactorily. In general, all fall bloomers flower well in the Piedmont. The mid-season, heavily imbricated flowered with petals spaced like shingles and containing no stamens) camellias don't flower as well in the Piedmont; however, most camellia blossoms containing stamens do flower very well in the colder region.

There are three blooming seasons for camellias in the South. They are fall (early blooming), mid-winter (mid-season blooming), and early spring (late season blooming). *Daikagura* is one of the best fall flowering *Camellias japonica*. Other good fall bloomers are *Daikagura Shell*

Pink, *Alba Plena*, *Debutante*, and *Daikagura Red*. A few good mid-season *Camellia japonicas* are *Donckelaari*, *Grandiflora Alba*, *Kumasaka*, *Mathotiana Herme*, *Chandeleri Elegans*, and *Tricolor*. Two late season bloomers are *Elizabeth* and *Victor Emmanuel*. Some varieties of *Camellia japonica* that have flowered successfully in Greenville, S. C., are *Cameo Pink*, *Cheerful*, *Elizabeth*, *Longview*, *Vanity Fair*, *Vedrine*, and *Laurel Leaf*.

All *sasanquas* bloom in the early or fall season. They usually can be distinguished from the *japonicas* by their smaller leaves and open habit of growth. Also, the *sasanquas* have a very slight odor, whereas most *japonicas* are odorless. Some good varieties of *sasanqua* are *Rosea*, *Mine-no-yuki* (Snow on the mountain), and *Apple Blossom*.

JOHN L. FRIERSON
Horticulture and Agronomy 1951

Under favorable growing conditions and over a period of years, certain camellia varieties sometimes reach a height of thirty feet. Camellias, like azaleas, require an acid soil, good drainage, high humidity, and cool winter temperatures along with year around partial shade. A sandy loam soil high in humus and with a pH of between 4.5 to 5.5 is desirable. A good soil mixture for potting or bedding out would be 1/3 peat, 1/3 woods earth, and 1/3 sand.

Camellias do best when planted so that they get and very little after planting can be anytime except hot or cold months to remember when that they are surf is, most of their near the surface of crown of the root be planted below the surrounding soil; h flat land the ball s

so that it is raised one to two inches above the level of the surrounding ground. Camellias prefer a moist soil condition at all times. Just how often they should be watered will depend on the climate and soil conditions.

Fertilizing camellias serves a three-fold purpose — it develops plant growth; it assists in maintaining a healthy plant; and it helps develop and "set" the following season's flower buds. Any good azalea fertilizer is usually a good camellia fertilizer. Experienced growers believe that the best time to apply fertilizer is just after the plant blooms or just before it blooms in the case of late bloomers. The application of too much fertilizer can be more detrimental to the plant than too little. Two to three pounds of fertilizer applied per hundred square feet is usually sufficient. It should be applied in a circle around the plant and then washed into the soil to prevent surface root burning.

Camellias should be mulched to help maintain a cool soil condition during the hot months and to help retain soil moisture. Acid type mulches (peat moss, oak leaves, pine needles) should be used as they also help to maintain an acid soil condition. If a heavy mulch is used, a fertilizer high in nitrogen content should be used to replace the nitrogen taken from the soil in decomposing the mulch.

Camellias may be pruned anytime during the year. Pruning tends to improve both vigor and shape of the plants. Due to their shallow root system, camellias should not be cultivated.

most common pests the scale insects. Florida Red Scale important insect pests. An oil emulsion Volck is very effective measure. However, used too often amounts of the stomata and kill or twig blight the application (on page 16)



BETWEEN 2



A. J. Schantes, national president ASAE, presenting award to S. T. Russell, past president of Clemson ASAE chapter. Other members of the Clemson chapter present are, from left to right, A. W. Snell, R. P. Bull, L. G. Jeffords, official delegate, and H. N. Black.

AG. ENGINEERS RECEIVES AWARD

Each year, the Farm Equipment Institute awards to the outstanding Student Branch of the American Society of Agricultural Engineers a trophy in recognition of outstanding work done and projects carried out during the year.

At the annual National Convention of A. S. A. E. in June, 1949, the South Carolina Student Branch at Clemson received this award. The winning of the coveted trophy climaxed a busy year filled with activity for the group at Clemson. The 100-page report submitted by the Clemson Chapter, which contained full description of field trips, programs, and the many other projects undertaken by the local Chapter, was used as a basis for the selection. A. W. Snell of Elloree served as chairman of the committee which prepared the report; other members of the committee were F. L. Fitz-Simons of Hendersonville, N. C., Earle Chamness of Bennettsville, H. P. Lynn of Clemson, and P. E. Gervais of John's Island.

A score of 81.2 gave the Clemson Student Branch first place in the competition. Following closely

were Iowa State College with a score of 77.9 and the University of Nebraska with 67.5. At the Convention, Clemson placed third behind Iowa State and the University of Georgia.

L. G. Jeffords of Timmons ville served as the official representative of the Clemson Branch at the National Convention. Others attending from the Student Branch were S. T. Russell of Jamestown, A. W. Snell of Elloree, Henry Black of Ruffin, and J. P. Bull of Santee. These men reported that they had an interesting as well as educational trip.

THE DAIRY CLUB DIRECTORY

The 1949-50 Dairy Club shall endeavor to revive the Dairy Club Directory. This will be the first Dairy Directory to be published on the campus since 1940. As did so many other items, this directory vanished during the dark, gloomy days of the recent war. It has been "missing in action" ever since. This year we hope to bring it back from the grave, and let it take its rightful place among the leading publications of the campus.

The Dairy Directory's purpose is to give news concerning the whereabouts of the Dairy Graduates. We sincerely hope this publication will be a constant source of information and pleasure. It will be the combined work of many students in the Dairy Department, and we hope it will prove to be a valuable connecting link between students, alumni, and faculty.

DR. COOPER DELIVERS ADDRESS

Dr. H. P. Cooper, dean of the Clemson School of Agriculture and director of the S. C. Experiment Station, delivered one of the principal addresses at the formal opening of a new, million dollar John Deere Plow Company branch plant at Atlanta, Georgia, on November 4th. Dr. Cooper attended the plant opening as the representative of the deans of agriculture of the Southern Land Grant Colleges, and was accompanied by Mr. G. B. Nutt, head of Clemson's Agricultural Engineering Department. The new plant will serve five southeastern states.

THE FURROWS



ALPHA ZETA INITIATES NEW MEMBERS

Alpha Zeta, national honorary agricultural fraternity, initiated 9 new members into the South Carolina Chapter on Thursday night, November 3.

The new members, chosen for their outstanding achievements in the School of Agriculture, are Richard B. Anderson, P. H. major of Sleepy Eye, Minn.; Clifford M. Cofer, Ag. Eng. major of Charlotte, N. C.; Lee DeYoung, Hort. major of Clemson, S. C.; James W. Dobson, Agronomy major of Central, S. C.; Samuel W. Hastings, Hort. major of Norfolk, Va.; Jack S. McGinnis, A. H. major, of Mooresboro, N. C.; James K. Price, A. H. major of Gaffney, S. C.; Robert M. Prince, Ag. Eng. major of Lynchburg, S. C.; and Robert B. Scott, A. H. major of York, S. C.

SEARS SCHOLARSHIP AWARDED

Twenty Sears Roebuck Foundation scholarships, each worth \$100, were awarded this week to Clemson freshmen majoring in agricultural subjects, it was announced to day by Dr. H. P. Cooper, dean of the Clemson School of Agriculture.

The sophomore Sears scholarship of \$200, awarded annually to the student making the highest grade point ratio, among the previous year's winners of freshmen scholarships, was awarded to Robert M. Prince, agricultural engineering sophomore of Lynchburg. Prince's grade point ratio averaged 8.20 for his first year's work. In addition to the scholarship award, he will receive a free trip to Chicago next spring and a chance to compete for one of three national scholarships awarded by the Sears Foundation.

The freshmen scholarship winners are: P. W. Hall, Pendleton; L. A. Davis, Cope; M. L. Jones, Lugoff; D. L. Brown, Florence; P. L. McCall, Jr., Hartsville; D. N. Chamblee, Anderson; A. W. Leland, Wadmalaw Island; R. W. Duke, Kingstree; R. B. Nickles, Hodges; and Carl Hance, Heath Springs.

Other winners are P. D. Dukes, Reevesville; R. T. Hollingsworth, Cross Hill; J. R. Tolbert, Anderson; R. T. Dunlap, Clinton; C. R. Richardson, Chapin; J. P. Bailes, Union; D. C. Martin, Travelers Rest; R. E. Faulkenbury, York; L. C. Weekley, Varnville; and D. D. Smith, Columbia.



DR. MILTON D. FARRAR

New Head Entomology and Zoology Department

New Entomology and Zoology Department Head

Dr. Milton D. Farrar recently assumed duties as entomologist for the S. C. Experiment Station and head of the Entomology and Zoology Department at Clemson, and as such is in charge of all research and teaching in these fields. Dr. Farrar was formerly associate director of the Crop Protection Institute at Durham, N. H.

In his new position Dr. Farrar succeeds the late Professor Franklin Sherman, who died in 1947. Mr. J. A. Berly, S. C. Experiment Station entomologist, had been serving as acting department head until the arrival of Dr. Farrar.

JUDGING TEAM IN CONTEST

The judging team of the Animal Husbandry Department finished third in the Southeastern Collegiate Judging Contest held in Atlanta recently. R. S. McCants, Jr., placed fourth in the entire contest and the team placed second in mules and swine. Members of the team are T. A. Warren, Jr., C. K. McRae, R. S. McCants, Jr., J. W. Ginn, Jr., and C. E. Causey, Jr.



From
"ARISTOCRATIC
PIGS"

To **BALENTINE'S
ARISTOCRAT**

- Pure Pork Sausage. In cups, tubes, and breakfast links.
- Sliced bacon
- Tender smoked hams
- Cooked hams
- Wieners
- Cooked luncheon loaves

MADE IN GREENVILLE, SOUTH CAROLINA
BY

Balentine Packing Co.

Eddy Dairy Supply Co.

GREENVILLE, S. C.

Distributors for:
**SURGE ELECTRIC MILKERS
&
FARM EQUIPMENT**



**ESCO STANDARD MILK COOLERS
ESCO ICY WALL MILK COOLERS
ESCO NI - AG - RA MILK COOLERS**

The above with 5-Year Guaranteed
Drop-in Units

**ESCO ELECTRIC STERILIZERS
ESCO WALK - IN ROOMS**



1027 E. NORTH ST.

PHONE 2-5432

Greetings to the Future Leaders and to those graduates already in the field who will be and are building the South Carolina Livestock Industry to take its rightful position in the standing of the Southeastern States.

Call on Kingan and Company, Orangeburg, any time you believe we can cooperate in any part of this worthwhile program.



KINGAN AND COMPANY



Agrarian Philosophy

By
The Editor



This is gonna' be kinda like riding a skinny mule bareback through a rock quarry—no padding or synthetic niceties—just hold tight, swing with the gait and flinch when necessary.

The rest of this magazine has already been edited, set up in type, proofread and the dummy made up—as a matter of fact, part of it has already been printed and more is on the press right now—and here I sit gazing at an absolutely blank page marked *Agrarian Philosophy*. Further, the printer is threatening to make me run off this issue of **The Agrarian** on a mimeograph if I don't give him a page of copy for *Agrarian Philosophy* soon, and I do mean PDQ.

Which all adds up to the fact that I've gotto' do some fast writing—no time to pick just the exact word to fit a situation or construct a sentence in just the right manner to convey a thought. Therefore, there'll be no saddle on this tortuous jaunt.

Guess I could waste a few words ranting about walking across the grass around the Ag Building instead of using the sidewalks; but any dumb jay-bird knows what sidewalks are for — anyway, aren't Clemson students interested in holding up their reputation as COUNTRY GENTLEMEN instead of acting like a horde of super-modern city slickers rabbit hunting on a farm all pretty and neat with fields covered by a thick mat of young tender grain—just at the stage when a mess of trodding, trampling, and a couple of amateur rabbit races would make it look like a dirty, patchwork quilt in a few days, and mean the difference between a good or bad grain crop.

I heard a story recently about a foreign correspondent for an American newspaper who was traveling through one of the far eastern countries. It seems this guy got to gabbing with a fellow American, a research engineer employed by this eastern country. During the course of the conversation it came out that this American engineer and his staff of native engineers had been working for a couple of years trying to perfect a method whereby they could operate their Marshall Plan tractors on alcohol instead of gasoline—alcohol be-

ing much more plentiful in this country than gasoline. (Pardon me while I take a little trip—gotta' explore the customs of the ancient civilizations of the east.)

On with the yarn! Well, this correspondent suddenly remembers he wrote a feature article during the war about some American outfit that had perfected the very method this American and his staff of native engineers had been over-working their gray matter a couple of years to find.

Having been developed only for use in an extreme emergency this plan pretty soon found itself filed away in the deep recesses of librarys and consequently received little publicity. (It would have to be an extreme emergency for many Americans to go to the unbelievable point of burning alcohol in a tractor. Mule train! Mule train!—may have a job for you back on the farm.)

Just think of the time, effort, and money—not to mention the mental gymnastics — that could have been saved had this engineer taken the trouble to enter the cloistered halls of some stately old library and braved the awe-inspiring silence and spine-tingling dignity long enough to make a thorough search of the files!

Many of us, and by us I mean every type of entertainment-starved individual that's ridden the skinny mule this far, seem to feel that a library is a place for old maids, bookworms, and the kind of people who'd vote against seeing "The Bells of Saint Marys" or "The Yearling" on Sunday. It sounds trite, but a library is like a lot of other things—it's what you make it.

Libraries are the master recorders of civilization—their shelves hold not only the accumulated knowledge of mankind, but also a record of the blunders and mistakes of our forefathers. Maybe if we made the most of our libraries we'd avoid many mistakes and needless repetition. Just a thought—poorly put at that!

This mule is getting skinnier all the time—guess I'd better rest a mite. —Merry Christmas!

**Costs so Little . . .
Returns so Much**



● Blue lupine and NITRAGIN can be a mighty profitable combination for increasing your cash crop yields. One Georgia farmer recently proved this with a corn yield from two adjoining acres. On acre No. 1, the corn was preceded by NITRAGIN inoculated Blue lupine. On Acre No. 2, no cover crop had grown . . . and this field produced only 17.3 bushels of corn. But acre No. 1 yielded 73.6 bushels. The noticeable difference in favor of NITRAGIN and lupine was 56.3 bonus bushels! All over the South farmers are increasing yields of cotton, corn, and other cash crops by inoculating the preceding "green-manure" legumes with NITRAGIN. When you put in lupines, winter peas, clovers, or vetch, always inoculate with NITRAGIN. It takes only a few minutes . . . costs only a few cents an acre to help assure success with the legumes you grow. Get NITRAGIN . . . in the yellow can . . . from your seedsman.



FREE Legume Booklets

A card from you will bring the free booklets that tell how to grow better lupines and other legume crops such as clovers, winter peas, and vetch. Write today.

THE NITRAGIN CO., Inc., 3929 N. Booth St., Milwaukee 12, Wis.

COTTON

(Continued from page 3)

South for many years after factories were built.

The cotton industry of the South has grown by leaps and bounds, surviving the perils of foreign competi-

tion, economic disasters, and even the boll weevil, until today it supplies three-fourths of the world's cotton needs.

Cotton contributes to the higher wants of man more than any other plant.

CAMELLIA CULTURE

(Continued from page 11)

of a 5-5-5 Bordeaux mixture in the early spring.

Camellias can be propagated by seedage, cuttage, or graftage. Propagating camellias by seedage is practiced primarily for the purpose of producing new varieties and grafting stock. The seed should be planted in the early fall in a mixture of 1/2 sandy loam and 1/2 peat moss and leaf mold and be covered with 1/2 inch of the same medium. A light sprinkling of aluminum sulfate or sulfur the or medium prevents "damping off." If a hot-bed is used germination will occur within 4 to 6 weeks. Under natural conditions the seed will germinate the next spring. The young plants should be potted when they have produced 4 to 6 leaves. The tap root should be cut back to stimulate the production of side roots. Semi-hardwood cuttings can be made when the new growth has turned slightly brown and is hard enough to "snap" when it is broken. Cuttings should be made 4 to 5 inches long, have at least 2 leaves left after the lower leaves are removed. A mixture of 2/3 sand and 1/3 peat makes a good rooting medium. The cuttings should be kept shaded from direct sunlight by a wide cloth or some similar material and humidity should be kept high. The cuttings should be rooted and ready for transplanting after 100 days. Camellias are usually grafted by means of whip grafts on young stock and cleft grafts on rootstocks over 5 years old. The graft should be firmly tied and covered with grafting wax. Contact between the cambiums of the scion and the stock is required before the graft will be successful.

Luke claimed to have the honor of being the most "sufferingest" patient in the hospital. It seems that he had rheumatism and St. Vitis' dance at the same time. His mouth dropped when he was told of the sailor who became seasick and then developed lockjaw at the same time.

One of the saddest announcements ever seen during the last depression was that posted before the Negro church saying, "Next Saturday night the annual Baptist strawberry festival will be held. On account of the depression, prunes will be served."



The Tale of Two Boys



The lad with the peeled willow fish pole took off his shoes. The grassy sod felt moist and mellow, like a thick rug protecting the soil.

The second boy kept his shoes on. Going barefoot is no fun where the land is stony, dry, and scarred by erosion.

Perhaps neither boy knew it, but the difference in the way those soils had been farmed held the clue to their future and the nation's.

Soil erosion is the most challenging

problem of agriculture today. Cooperating with the U.S. Soil Conservation Service, Allis-Chalmers is advancing a national plan of action to help farmers conserve and rebuild soil fertility with regular, home-owned power farming equipment. It is a soil-saving system which immediately increases crop yields and improves the nutritive value of our foods.

This is being done not only with a thought for the boys of today . . . but of the tomorrow beyond tomorrow.



The ROTO-BALER developed by Allis-Chalmers introduces a new type of *rolled* bale, saving more calcium-rich leaves of soil-building hay crops. Leafier alfalfa means more nutritious meat and milk for your table.

ALLIS-CHALMERS
TRACTOR DIVISION - MILWAUKEE 1, U. S. A.

CASH ON THE "STUMPHEAD"

SMALL FORESTS AND WOODLOTS CAN YIELD GOOD PROFITS THROUGH GOOD MANAGEMENT AND SELECTIVE CUTTING

A farmer in Louisiana was offered \$500 for all the timber in his wood lot. To him it seemed a good price, and he needed the money. But after discussing the sale with his county agent the farmer had a forester examine the wood lot. As a result of this examination he decided not to sell all the timber in the tract. But, instead, with the help of the forester, the farmer made thinnings to release the crowded trees for faster growth, and he made an improvement cut to get rid of defective trees and weeds that were taking up valuable space. In that way he sold about one-third of his timber, and he got \$1,700 for it. Moreover, five years hence he will be able to make another sale. The farmer will soon have a steady income from the timber.

In Kentucky, a landowner was offered \$7,000 for 310 trees selected by the buyer. On advice of a forester, however, only 199 trees were marked as mature. Bids were invited and those 199 trees were sold for \$12,600. Equally important was the fact that adequate growing stock of the more valuable species, properly spaced to obtain maximum growth, was left on the land with an eye to future values.

In South Carolina, the owner of a farm woodland was tempted to sell the entire tract for \$2,500. With a forester's help, he sold part of the timber for \$7,450 and has half of the trees, the best ones for future growth, still at work on the land growing more wood for another harvest.

These two examples illustrate how a small but ever-increasing number of farmers and other owners of small woodlands are obtaining cash crops.

Most owners of small forest tracts do not usually think of their properties as having possibilities for a regular income; to them, the trees in their woodlands might have no particular value except possibly for fuel

wood and fence posts. An offer of a few hundred dollars for all the timber in a small tract probably would strike most such owners as an unexpected bit of good fortune. Yet a small forest, even one of only 50 to 60 acres, can be made to yield its owner good financial returns at regular intervals of 5 to 10 years, sometimes more frequently.

By H. F. PHILIPPSTAHL
Botany, 1951

The key to forest profits is, of course, good forest management. Good management is happily in the reach of most owners of small forest properties. Many, however, will need technical assistance in getting started in profitable woodland management because few owners of small forests now earn their living, or even a small part of it, solely by growing timber. Timber production, if engaged in at all, is definitely a side issue to farming, teaching, selling hardware, banking or some other full time job. Timber grow-

ing to the great majority of small forest owners is a new business.

Important as small forest holdings are—or can be—to their owners in yielding a substantial extra income, these small forests are even more important to the nation. Much of our present out-put of forest products come from small woodlands. As remaining virgin forests, mostly in large holdings, are cut, the nation's dependence on small wooded areas will increase. All of the forest land in public ownership and all of the land held by large companies, even if managed for continuous timber production, will not yield enough timber to meet future national needs. Less than half of the country's total acreage of commercial forest land is in those ownership classes; the rest is in small holdings. The outstanding importance of small forests in private-forestry cannot be over-emphasized; nearly three of every four acres in private ownership is in individual holdings of less than 100 acres. Despite many exceptions, those small woodlands are not being managed for continuous forest production. Furthermore, out of 100 acres cut for timber only 29 are replanted. With a percentage like this every farmer, with any amount of timber at all, can make a profit every year.

W. B. CAMP & SONS, INC.



Bakersfield, California

and

Gaffney South Carolina



Today, Farming's more fun!

Farming has changed a lot since the old days. Grandpa was up before the sun and finished his day choring by the flickering light of a smoky kerosene lantern. Long hours and spirit-dulling drudgery were as much a part of farming as his blue denim overalls.

Today, modern power equipment has multiplied the farmers' productivity and taken over much of the muscle work that used to sentence farm families to a lifetime of hard labor. Our farm scientists have developed improved crop varieties and given us better controls for pests and diseases. Crop rotation, soil conservation, and other modern practices

help to make the words "America" and "abundance" synonymous.

These modern advancements have not only skyrocketed farm income, but have given farmers more time and energy to enjoy it. Nowadays, there is often time for a little fishing after the chores are done. Farm families spend more hours together, play a bigger part in community activities, and enjoy vacations just like their city cousins.

Yes, farming has become an even more important and challenging occupation than it was in the old days—and a lot more fun!

J O H N  D E E R E

M O L I N E • I L L I N O I S

YOUR COMMUNITY

MAKES PROGRESS THROUGH THE GOOD WORK
OF ITS CITIZENS



SOUTH CAROLINA POWER COMPANY



Friendly Service for Better Living



QUESTIONS

- A Find four letters with teeth, look for them in the name; Though not used in this sense, the spelling's the same.
- B When on your back, it's cut to measure, When in a pack, it's for your pleasure.
- C Cirrus, nimbus and cumulus; change one letter and then Sisal, manila and hemp; change one letter again.

ANSWERS WILL APPEAR IN THE
NEXT ISSUE OF YOUR MAGAZINE

Chesterfield

RULES FOR CHESTERFIELD HUMOR MAGAZINE CONTEST

1. Identify the 3 subjects in back cover ad. All clues are in ad.
2. Submit answers on Chesterfield wrapper or reasonable facsimile to this publication office.
3. First ten correct answers from different students win a carton of Chesterfield Cigarettes each.
4. Enter as many as you like, but one Chesterfield wrapper or facsimile must accompany each entry.
5. Contest closes midnight, one week after this issue's publication date. New contest next issue.
6. Answers and names of winners will appear in the next issue.
7. All answers become the property of Chesterfield.
8. Decision of judges will be final.

WATCH FOR THE WINNERS
IN NEXT ISSUE

OK, boys all you gotta' do to win a carton of Chesterfields is move fast—'cause the first ten contest answers that are turned in to Bill Darby, Room 1-374 will get just that—200 free smokes.

POULTRY IMPROVEMENT

(continued from page five)

ing stage the females must make official trap nest records of 200 eggs or more averaging 24 ozs. per dozen and meet certain body weight standards, while the males must come from ancestry of similar record. In 1949 five poultry breeders in South Carolina were engaged in the production of U.S. R.O.P. stock.

The final breeding stage is N.S. Register of Merit. A U.S.R.O.M. sire is a male which has at least one-half, and a minimum of 20 of his daughters qualify as U.S.R.O.P.

The Pullorum-Control and Eradication Classes are U.S. Pullorum-Controlled, U.S. Pullorum-Passed, and U.S. Pullorum-Clean. In each of the classes the flocks must be tested for pullorum by an approved method under supervision of an official state agency after the flock has reached 5 months of age. In Pullorum-Controlled flocks, not more than 2 percent reactors are allowed in the last test, and all reactors must be eliminated from the flock. The last test must not have been made more than 12 months preceeding the sale of eggs. U. S. Pullorum-Controlled hatching eggs are eggs from controlled flocks. U.S. Pullorum-Controlled chicks are those from eggs produced by Controlled, Passed, or Clean Flocks, and hatched in a Pullorum-Controlled hatchery. Thirteen hatcheries of the state operated under this rating in 1949.

U.S. Pullorum-Passed flocks shall contain no reactors, the last test being made within the testing year immediately preceding the date of sale of hatching eggs or chicks from such flocks. U.S. Pullorum-Passed chicks are those hatched in Pullorum-Passed hatcheries from eggs produced by Pullorum-Passed or Pullorum-Clean flocks. Seventeen hatcheries of the state made this rating in 1949.

U.S. Pullorum-Clean flocks shall contain no reactors in two tests made at least 6 months apart or 3 tests made at least 30 days apart. After a flock has been established as Pullorum-Clean, one test pen will be sufficient to maintain the rating. U.S. Pullorum-Clean chicks come only from Pullorum-Clean eggs and must be hatched in Pullorum-Clean hatcheries. Ten South Carolina hatcheries obtained this rating in 1949.

THE LUCKY SOUTH!!

WE CAN HAVE GREEN PASTURES THE YEAR 'ROUND

Winter feed is the No. 1 problem facing the cattle industry in the South today. A wide variety of so-called "winter pastures" such as hay, fodder, silage and supplemental range have been tried and "found wanting" by the average farmer. We of the South are indeed fortunate in our mild climate which makes possible the growing of year round pastures. Perhaps no section of the United States can offer such a climatic condition and for this reason the winter feeding problem has never been solved. If a farmer fails to find one crop ideal he drops it and tries another, without giving the first crop time to develop its full potentialities.

Successful livestock farming has always been closely related to green pastures. Nomadic people throughout the world have always searched for green pastures and when these were found they prospered and multiplied. It is true that in most of the civilized world man has learned to store food for winter periods, but even then he has always dreamed of green pastures with grazing cattle therein the year round. This need no longer be a dream, for with the present day grasses and proper management it has come to be a reality.

The Animal Husbandry Department of Clemson College has conducted winter grazing tests for several successive winters using purebred Hereford cows in the test. Last winter (1948-1949) the date of seeding was October 12, 1948. Forty pounds of Ryegrass and 20 pounds of Crimson clover per acre were used with 700 pounds of 4-10-6 and 200 pounds of sodium nitrate being applied as fertilizer. The most important factors of planting time are a well prepared seedbed and an early seeding date. It is desirable to have seeding date by the last of September if possible. In this test, grazing was started February 2, 1949 which gave a period of about 4 months between seeding and grazing. There were 30 acres of pasture in the test and 7 to 32 cows were grazed. The cows were allowed to calve while on pasture and the cal-



A winter pasture like this is a real Christmas present for a herd

ves remained on pasture also. The cows and calves were removed from the pasture May 16, 1949, giving a period of approximately 3 months on grazing. The daily gain per cow was 3.11 pounds and the daily gain per calf was 1.67 pounds. The cost of grazing per acre was \$33.62 which

T. A. WARREN, JR.
Animal Husbandry '50

amounted to 47 cents per cow per day. These figures speak for themselves as to economy; and these are not accidental results. Tests were also conducted during the two previous winters with approximately the same results.

No results have been released as of yet, but the Fescue-Ladino clover combination seems to be an improvement in the grazing world. Without a doubt cattle production is on the increase in the South and year round grazing is the key word. Those who are far sighted enough to keep up with the changes and improvements in management will be leaders in this expanding industry.

Overgrazing is probably the greatest mistake that most people make with winter grazing. This usually results from the failure to provide sufficient acreage to care for the animals that must be fed. Greater returns can be had from grazing several different pastures rotationally. Removing the cattle from a field after it has been grazed down gives it an opportunity to recover

faster. The best results can be obtained if enough grazing is available to give each field a three to four-weeks rest following each grazing period.

With all the advantages we have in the South, there is no reason why the fields should not be green the year round. For our economic welfare let us strive and take steps forward to this goal.

More Ether

Egotism is an anesthetic which nature has given to deaden the pain of being a fool.

When God made man He did not arrange the joints so that he could pat himself on the back.

"Your methods of cultivation are hopelessly out of date," said the youthful agricultural college graduate to the old farmer. "Why I'd be astonished if you got ten pounds of apples from that tree."

"So would I" replied the farmer, "it's a pear tree."

Closest Aid

"If you're looking for a helping hand—try the one on the end of your arm."

"The dogs in Siberia are the fastest in the world."

"Why?"

"The trees are so far apart."

TALL CORN

A little city boy who had been to the country, was describing to another boy friend the big pig he had seen. "It was in a pen," he said, "and it was afraid of all the little pigs. They would chase the big pig all over the pen, around and around, and pretty soon it fell with exhaustion, and the little pigs pounced upon the big pig and ate all the buttons off his vest."

Some men grow under responsibility—others only swell.

In Texas they like their liquor straight, as witness the case of one old timer, who, upon taking in his hand a small tumbler of whiskey said, "Blindfold me and hold my nose—'cause if I see it or smell it, my mouth will water and dilute it."

He is a gentleman farmer; the only thing he raises is his hat.

This sign was posted over a Kentucky farmer's acres:

NOTIS

Trespassers will be persecuted to the full extent of two mongrel dogs which ain't never been too sociable with strangers and one double br'l shotgun which ain't loaded with soft pillows. Danged if I ain't gitting tired of this hell raising 'round my place.

The meanest man in the world is the man who threw his voice under the old maid's bed.

A young man met a rival who was somewhat advanced in years, at the home of the girl they both courted, and wishing to annoy him, inquired how old he was. "I can't exactly tell," replied the older; "but I do know that an ass is older at twenty than a man at sixty."

REVENGE: The bull gored the car of the veterinarian who was the artificial insemination agent.

LOVE COWS?

It was late dusk; the moon was just showing on the horizon. The farm boy and the girl from town were leaning on the pasture bars watching the calf and its mother rubbing noses.

"Gee!" said the farm boy. "I'd like to be doing that."

"Go ahead," smiled the girl. "It's your cow."

What this country needs is a good recipe for home brew, intended for those who have no home.

Bride: "What is the best way to protect my wedding ring?"

Mother: "Dip it in dishwater three times a day."

The two battered wrecks of humanity sat together on the park bench discussing their plight. "I asked for it, pal," said the first, "I never would take anyone's advice." "So did I, friend," returned the first, "I took everyone's."

Dr. W. E. Petersen, dairyman of the Minnesota staff has set up a list of "udderances" for the success of the dairyman, quote:

To be successful, a dairyman must be udderwise.

All that a dairyman is he owes to udders.

Cows must be milked from the udder end.

Many cows are udderly ruined by poor milking.

The cow's udder is a bigger money bag than most udders.

Udders injuries produce mastitis.

Be considerate of udders and the regard shall be yours.

Don't expect good results from a cow that is udderly neglected.

This is not all udder nonsense.

Daffynitions

Optimist—a guy who opens a quart of whiskey in a crowd and saves the cork.

Wedding — a funeral where you smell your own flowers.

It was the first vaudville performance the old colored lady had ever seen, and she was particularly excited over the marvelous performance of the magician. But when he covered a newspaper with a heavy flannel cloth and read the fine print through it, she grew a little nervous. He then doubled the cloth and again read the letters perfectly. This was more than the old colored lady could stand, and jumping up from her seat, she said: "Tze goi'n home, dis ain't no place for a lady with a thin calico dress."

A mountaneer of one of the back counties of Kentucky was arraigned with several others for illegal distilling. "Defendant," said the judge, "what is your name?"

"Joshua," was the reply.

"Are you the man who made the Sun Stand still?"

Quick as a flash came the answer, "No, sir; I am the man who made the moonshine."

A cow-puncher ordered a steak at a restaurant. The waiter brought it in rare—very rare. The cow-puncher looked at it and demanded that it be returned to the kitchen and cooked.

"It is cooked," snapped the waiter.

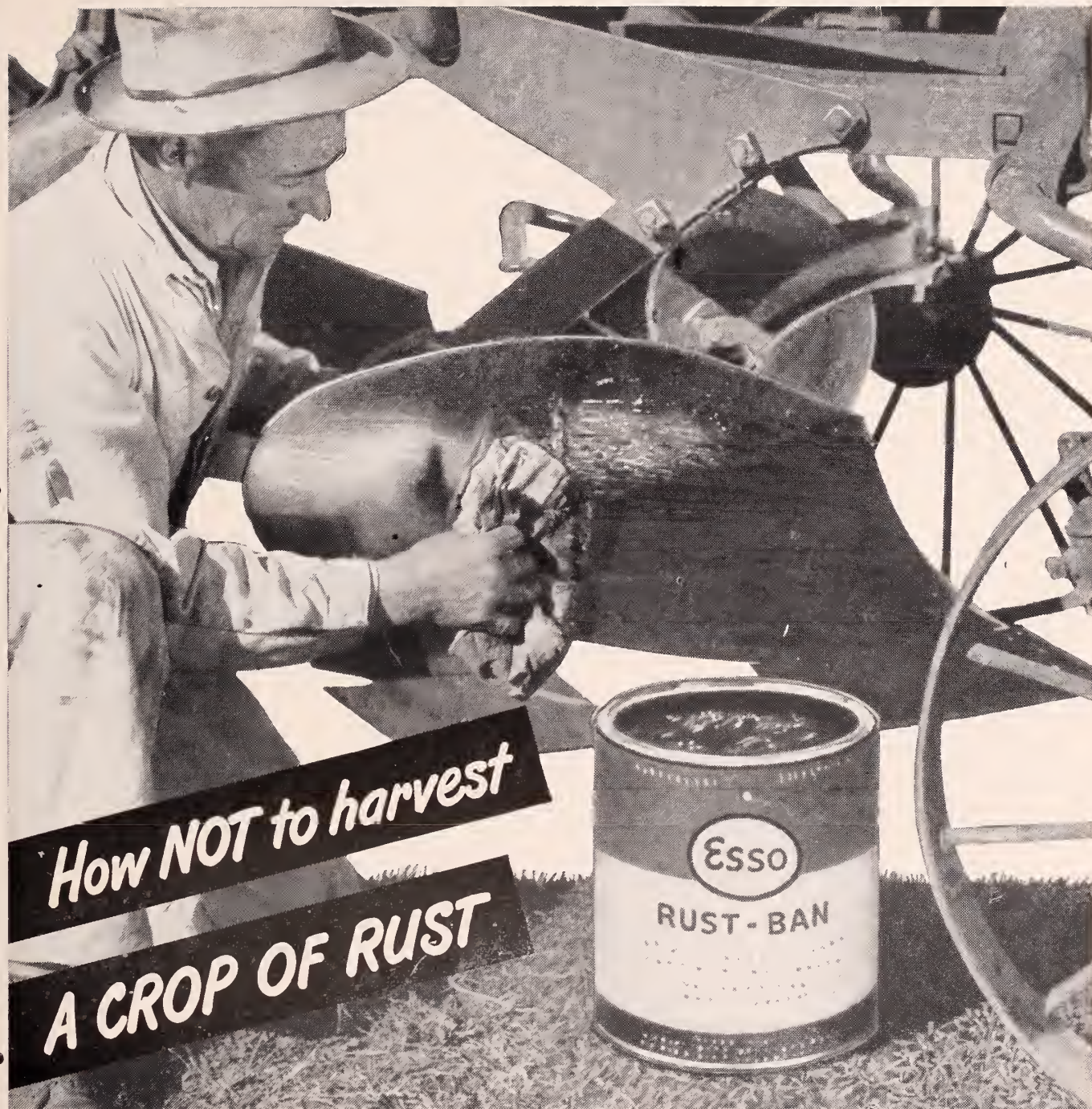
"Cooked — nothing," replied the cow-puncher. "I've seen cows hurt worse than that and get well."

A little boy asked his father, "Pa-pa, what does it mean, business ethics?"

"Well, explained the merchant, "it's like this. Comes into the store a man and makes a purchase. He gives me bright, new five-dollar bill, which is just the right amount, and starts out. I'm turning to the cash register when I discover that it's not one, it's two five-dollar bills stuck together. Now comes in the business ethics—should I tell my partner?"

A woman may be as old as she looks, but a man is old if he doesn't.

A wedding ring is like a tourniquet! It stops your circulation.



AT LAY-UP TIME this Fall—you can help prevent the winter rust that costs thousands of farmers the use of valuable farming equipment *if you use Esso Rust-Bans.*

ESSO RUST-BAN 347 protects all kinds of exposed machinery metal. It is quickly and easily applied with brush or cloth, and readily removed at any time with kerosene. For plows, cultivators, disks, and other exposed implements.

TO STOP the attack of rust on the insides of idle engines, use *Esso Rust-Ban 603*. It has special properties that combat rust, and a protective film adheres to inside engine surfaces, affording important, winter-long protection. In the Spring, Rust-Ban is replaced with motor oil.

ANY ESSO FARM DISTRIBUTOR will gladly tell you about other Esso Rust-Ban products that can mean money-saving protection for valuable farm equipment.



AGRICULTURAL STUDENTS are offered free subscriptions to regularly published ESSO FARM NEWS . . . a favorite with farmers for its very complete crop articles and its many helpful tips to better farming. To get yours, please write: Esso Farm News, 15 West 51st Street, New York 19, N. Y.

ESSO STANDARD OIL COMPANY

Short Notes on Long Hall

Dr. W. F. Chamberlain recently arrived at Clemson to assume duties as Associate Entomologist with the S. C. Experiment Station. Dr. Chamberlain received his Ph.D. degree from the University of California at Berkeley in June, 1949.

A. B. Snell of Elloree, a 1949 Clemson graduate, has been appointed assistant professor of agricultural engineering. Prof. Snell will teach soil and water conservation engineering as well as drainage and irrigation studies.

A. W. Snell of Elloree, a 1949 Clemson horticulture graduate, has been appointed assistant professor of horticulture to serve for one year replacing assistant professor T. L. Senn, who is doing graduate study at the University of Maryland, College Park, Md.

Over 30 delegates from five foreign countries as well as the United States attended the first International Sesame Conference held at Clemson College on August 15-16.

Foreign visitors from Denmark, France, Venezuela, El Salvador and India were welcomed to the campus by Dr. R. F. Poole, and Dr. H. P. Cooper, director of the S. C. Experiment Station.

Sesame, or "benne" as it is familiarly known, has new possibilities as a cash crop for the Southeast, delegates were told by J. A. Martin, associate horticulturist of the S. C. Experiment Station. The oil-rich seeds are increasingly in demand as the cottonseed oil supply decreases with acreage controls being applied, Martin added.

Thirty-one seniors in the animal husbandry department at present as against nine seniors in 1939 attest to the rapid growth of this department in recent years and the increased interest in stock raising in South Carolina. This department now has more student majors than any other department within the School of Agriculture.

DR. COOPER ELECTED

VICE-PRESIDENT OF A. S. A.

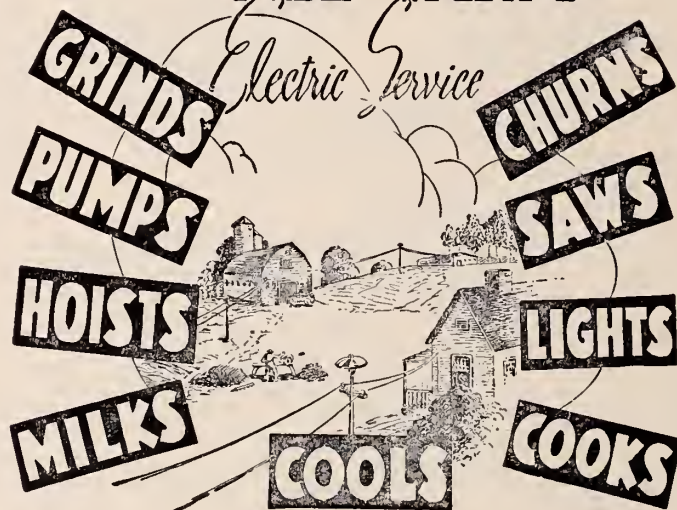
Dr. H. P. Cooper, dean of the Clemson School of Agriculture and director of the South Carolina Experiment Station, was elected vice-president of the American Society of Agronomy at the annual meeting of the group, held October 25-28 in Milwaukee, Wisconsin.

Under the rules of the organization Dr. Cooper will become president of the Society in 1950 after serving one year in the vice-president's capacity. This marks the second time in recent years that a

Southerner has been elected to the post, the first also being a Clemson graduate in the Class of 1908, M. J. Funchess, dean of the Auburn School of Agriculture, and director of the Alabama Experiment Station.

Dr. Cooper was graduated from Clemson in the Class of 1911, and received his Ph.D. degree from Cornell University in 1922. He has received national recognition for his research on minor nutrient elements in plant nutrition.

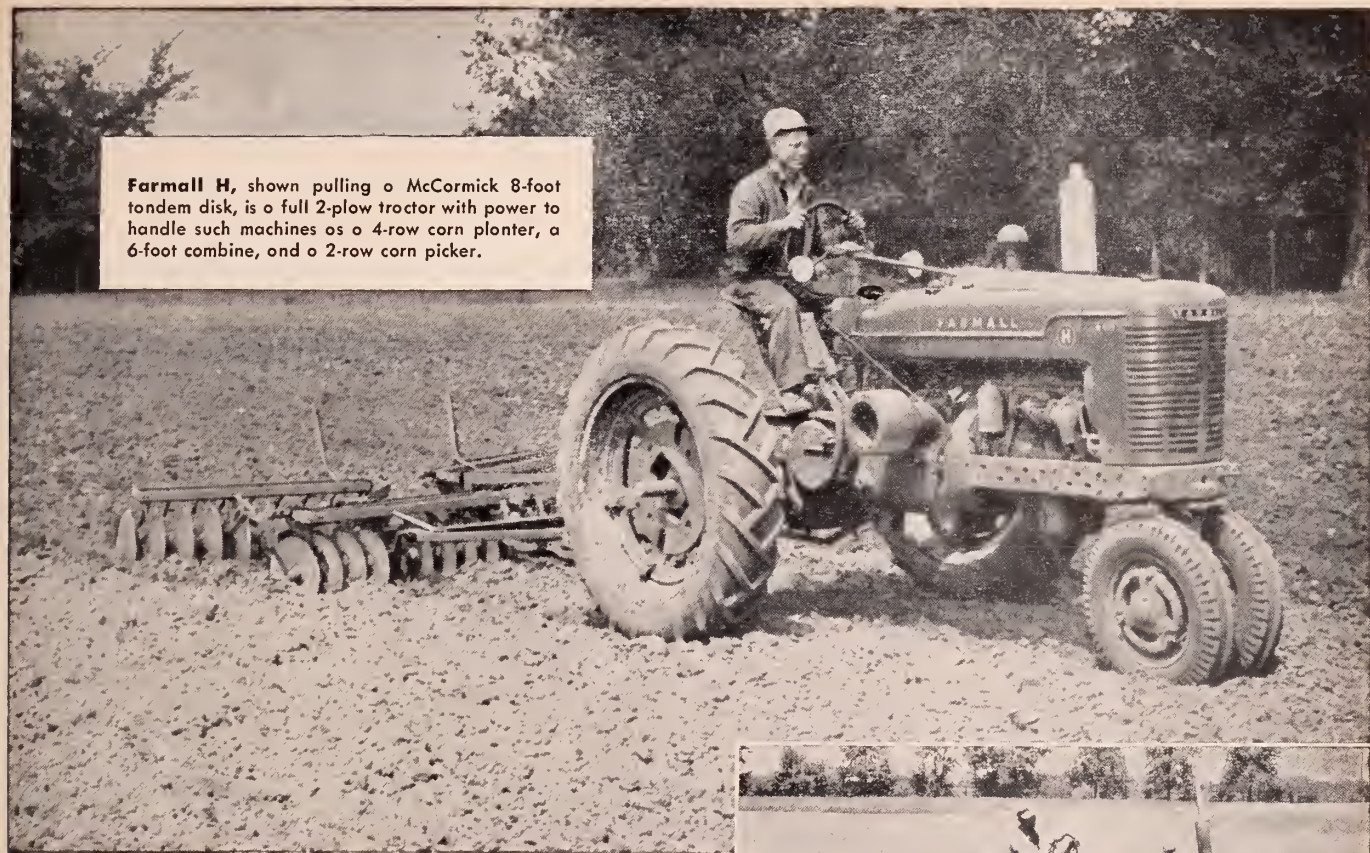
ALL AROUND THE FARM



Relatively few farms had electric service when the Duke Power Company began its rural electrification program 25 years ago. Today, the Piedmont Carolinas are one of the most highly electrified rural areas in the South, and new farms are being added daily on line extensions which already total an astonishing 15,000 miles and more in the Rural Piedmont of the two Carolinas.

DUKE POWER COMPANY
Serving the Piedmont Carolinas

Farmall H, shown pulling a McCormick 8-foot tandem disk, is a full 2-plow tractor with power to handle such machines as a 4-row corn planter, a 6-foot combine, and a 2-row corn picker.



Why you'll like your new **FARMALL** better each year



Farmall M, shown turning sod with a McCormick No. 8 three-bottom moldboard plow, is the largest of the five Farmalls... plows up to 17 acres a day.

Your liking for a new Farmall will grow fast during the first few days you use it.

You'll like its quick-starting, powerful, four-cylinder engine, its easy handling and pin-point turning, and the ease of attaching matched, quick-change McCormick implements. You'll like the fingertip control of mounted implements with hydraulic Farmall Touch-Control or Lift-All, and the

easy control of pull-type implements with the new Farmall Remote Control (for Farmalls H, M, and MD).

But it takes more than a few days to learn how good a Farmall really is. It takes many busy years, Farmall owners say. Year after year, owners find Farmalls always ready to work, hot or cold, rain or shine. They find that repairs are seldom needed... and that service and re-

placement parts can always be had from a nearby IH dealer. They find that used Farmalls have high trade-in or resale values. These things add up to long life, low maintenance cost, and low cost per year of Farmall ownership.

Farmall tractors are built only by International Harvester, you know. So see your IH dealer. He can arrange convenient payment terms if you wish.



This modern building symbolizes the expanded service facilities of IH dealers throughout America.

INTERNATIONAL HARVESTER

180 NORTH MICHIGAN AVENUE • CHICAGO 1, ILLINOIS

LISTEN TO JAMES MELTON ON "HARVEST OF STARS" EVERY SUNDAY AFTERNOON ON NBC.

"To my friends
and fans I recommend
Chesterfields
It's MY cigarette"

Barbara Stanwyck

STARRING IN
"THE FILE ON THELMA JORDON"
A HAL WALLIS PRODUCTION
A PARAMOUNT PICTURE



"... and I recommend them too -

Because they're really Milder. For over 30 years I've
seen Chesterfield buy the Best Mild ripe tobacco grown."

Claud Pope

PROMINENT TOBACCO FARMER FROM HILLSBORO, N.C.

A *lways* **B** *uy* **C** **CHESTERFIELD**
THE BEST CIGARETTE FOR YOU TO SMOKE